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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,449	07/12/2004	Brian H. Welker	716919.78	4448
27128	7590	11/15/2004	EXAMINER	
BLACKWELL SANDERS PEPPER MARTIN LLP			VERBITSKY, GAIL KAPLAN	
720 OLIVE STREET			ART UNIT	
SUITE 2400			PAPER NUMBER	
ST. LOUIS, MO 63101			2859	

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/710,449		WELKER, BRIAN H.	
	Examiner		Art Unit	
	Gail Verbitsky		2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deak et al. (U.S. 5662418) [hereinafter Deak] in view of Daily et al. (U.S. 4653935) [hereinafter Daily] and Baldock et al. (U.S. 6231230) [hereinafter Baldock].

Deak discloses in Figs. 1, 5 a probe device comprising an insertable temperature probe having a temperature sensor device comprising a thermocouple (temperature sensor, temperature sensing element), a portion of the temperature sensor device (thermocouple hot junction) is adapted to sense and transmit a signal indicative of a temperature of a fluid within a conduit/ gas housing 33/ 38. The probe device also includes a carrier 11 for insertion in the flow of the conduit; at least the portion of the temperature sensor device (thermocouple hot junction) is carried by the carrier 11. The probe device also comprises means 34/ 35 to mount the probe device/ carrier 11 onto the conduit 33/ 38. The carrier 11 includes a rod 11b with a tubular sidewall defining a bore wherein said thermocouple is positioned, and has a fluid flow path to the interior/ inside the bore as directed by a flow director/ openings/ channels 14/15 on the rod 11b of the carrier 11, so as the fluid flow flows around the thermocouple (hot junction). This

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would imply, that depending on the positioning (aligning the flow channels with the direction of the fluid flow), the carrier within the conduit, the flow director with its first opening (on one side of the flow channel 14/ 15) would face the upstream of the fluid flow. Then a second opening (on the other side of the flow channel 14/ 15) will face the downstream of the fluid flow.

Deak does not explicitly state that the thermocouple/ sensor is removable mounted within the carrier and sealed thereto, that the carrier is selectively movable between retracted and expanded positions, as stated in claim 1, in combination with the remaining limitations of claims 1-7.

Daily discloses in Figs. 3-6 a device comprising an insertable probe assembly for measuring temperature, the probe includes a temperature sensor (thermocouple) 126 adapted to transmit a signal indicative of a temperature of a fluid in a wall/ conduit 40, a carrier (tube 124 and a thermocouple conduit 34) for insertion into a flow stream in the conduit 40, wherein the thermocouple is removably mounted within the tube 124 of the carrier, sealed thereto with a block 84, and a sensing element (hot junction) is inherently contained within the carrier.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Deak, so as to make the thermocouple invertible in the carrier and sealed to it, as taught by Daily, so as to allow the operator to remove not only the carrier, but also a thermocouple from the carrier, in order to replace the thermocouple if there is a need.

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Baldock discloses in Fig. 1 a carrier (thermowell housing) containing a temperature sensor (thermocouple), the carrier can be (selectively) retracted and expanded when it inserted/ received in a container (pipeline) of interest.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Deak, so as to make the carrier selectively retractable/ expandable when inserted in a container of interest, as taught by Baldock, so as to accommodate a desired depth/ distance of the container.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky

Primary Patent Examiner, TC 2800



November 09, 2004